

isc Silicon PNP Power Transistor

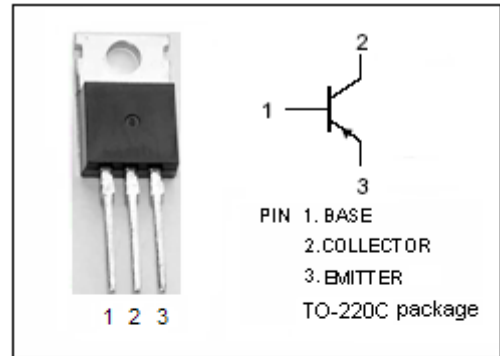
2SB703

DESCRIPTION

- Collector-Emitter Breakdown Voltage-
: $V_{(BR)CEO} = -80V(\text{Min})$
- DC Current Gain-
: $h_{FE} = 40\sim 200 @ I_C = -0.5A$
- Complement to Type 2SD743

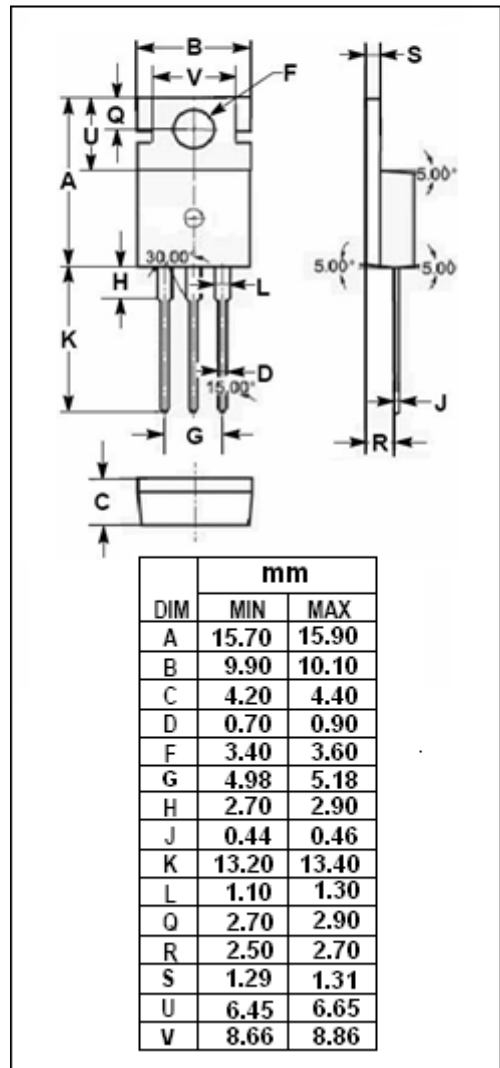
APPLICATIONS

- Designed for use in audio frequency power amplifier, low speed switching applications.



ABSOLUTE MAXIMUM RATINGS($T_a=25^\circ\text{C}$)

SYMBOL	PARAMETER	VALUE	UNIT
V_{CBO}	Collector-Base Voltage	-80	V
V_{CEO}	Collector-Emitter Voltage	-80	V
V_{EBO}	Emitter-Base Voltage	-5	V
I_C	Collector Current-Continuous	-4	A
I_{CM}	Collector Current-Peak	-6	A
I_B	Base Current-Continuous	-1	A
P_C	Collector Power Dissipation @ $T_C=25^\circ\text{C}$	40	W
T_J	Junction Temperature	150	$^\circ\text{C}$
T_{stg}	Storage Temperature Range	-55~150	$^\circ\text{C}$



THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
$R_{th\ j-c}$	Thermal Resistance, Junction to Case	3.125	$^\circ\text{C}/\text{W}$

isc Silicon PNP Power Transistor

2SB703

ELECTRICAL CHARACTERISTICS

 $T_C=25^{\circ}\text{C}$ unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
$V_{(BR)CEO}$	Collector-Emitter Breakdown Voltage	$I_C = -10\text{mA}; I_B = 0$	-80			V
$V_{(BR)CBO}$	Collector-Base Breakdown Voltage	$I_C = -1\text{mA}; I_E = 0$	-80			V
$V_{(BR)EBO}$	Emitter-Base Breakdown Voltage	$I_E = -1\text{mA}; I_C = 0$	-5			V
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage	$I_C = -3\text{A}; I_B = -0.3\text{A}$			-2.0	V
$V_{BE(sat)}$	Base-Emitter Saturation Voltage	$I_C = -3\text{A}; I_B = -0.3\text{A}$			-2.0	V
I_{CBO}	Collector Cutoff Current	$V_{CB} = -80\text{V}; I_E = 0$			-10	μA
I_{EBO}	Emitter Cutoff Current	$V_{EB} = -3\text{V}; I_C = 0$			-10	μA
h_{FE-1}	DC Current Gain	$I_C = -20\text{mA}; V_{CE} = -5\text{V}$	30			
h_{FE-2}	DC Current Gain	$I_C = -0.5\text{A}; V_{CE} = -5\text{V}$	40		200	
f_T	Current-Gain—Bandwidth Product	$I_C = -0.1\text{A}; V_{CE} = -5\text{V}; f_{test} = 1.0\text{MHz}$	10			MHz

◆ h_{FE-2} Classifications

S	R	Q
40-80	60-120	100-200